CLAIMS

1. An electric power system comprising:

a weather data input means for inputting weather data, temperature, atmospheric pressure and weather, in the district of an operating transmission line;

a memory means for storing said transmission line data and processed data by a digital processing unit;

a digital processing unit for calculating corona discharge start voltage of said transmission lines and deciding set transmission voltage of the transmission line; and

a power system analysis means;

characterized in that:

data on weather forecasts is inputted for the district at predetermined time intervals,

the digital processing unit calculates the estimated corona discharge start voltage for said transmission line by the data on weather forecasts,

if the calculated corona discharge start voltage of the transmission line is lower than a normal transmission voltage of the line, countermeasure transmission voltage that is recorded in memory means in advance is selected to set transmission voltage of the transmission line or stop the transmitting electric power on the transmission line,

if the calculated corona discharge start voltage of the transmission line is above the normal transmission voltage of

the line, the normal transmission voltage is selected as the set transmission voltage of the transmission line,

the power system analysis means analyzes the load of apparatuses of the power system, and

according to an analysis result, the electric power system operates the apparatuses and transmits electric power.

2. An electronic computer comprising:

a weather data input means for inputting weather data, temperature, atmospheric pressure and weather, in the district of an operating transmission line;

a memory means for storing said transmission line data and processed data by digital processing unit;

a digital processing unit for calculating corona discharge start voltage of said transmission line and deciding set transmission voltage of the transmission line; and

an output means for outputting and transmitting the set transmission voltage of the transmission line;

including;

a step of inputting weather data,

a step wherein the digital processing unit calculates a estimated corona discharge start voltage for said transmission line, by the weather data,

a step wherein if the calculated corona discharge start voltage of the transmission line is lower than a normal transmission voltage of the line, countermeasure transmission voltage is selected as the set transmission voltage of the

transmission line,

a step wherein if the calculated corona discharge start voltage of the transmission line is above the normal transmission voltage of the line, the normal transmission voltage is selected as the set the transmission voltage of the transmission line, and

a step of outputting and sending the set transmission voltage of all the transmission lines.

3. A computer readable storage medium, for storing the program of claim 2.

4. A server for storing the program of claim 2.

5. An electric power system comprising:

a corona discharge detection means;

a weather detecting means;

a transmitter;

a digital processing unit; and

a power system analysis means;

including;

stopping corona discharge in a short time by lowering the transmission voltages of a transmission line that generates corona discharge, or stopping transmitting electric power in the transmission line;

adjusting loads of apparatuses in the electric power system; and

operating the apparatuses under an adjusted condition for supplying electric power.

6. The electric power system according to claim 5,

Further comprising:

storing weather conditions before and after occurrence of corona discharge, and

changing the transmission voltage to a previous one, when the weather conditions are assumed not to generate corona discharge.

7. The electric power system according to claim 5, wherein said corona discharge detection means is an ultraviolet light detecting device.

8. The electric power system according to claim 5, wherein said corona discharge detection means is the ultraviolet light detecting device that detects wavelength 100 nm to 320nm ultraviolet light.

9. The electric power system according to claim 5,

wherein:

the previous transmission voltage is restored a predetermined time after lowering the transmission voltages.

10. An electric power system operating method comprising:

a weather data input means for inputting weather data,

temperature, atmospheric pressure and weather;

a memory means for storing said transmission line data and processed data, by a digital processing unit;

a digital processing unit for calculating corona discharge start voltage of said transmission line and deciding set transmission voltage of the transmission line; and

a power system analysis means;
characterized in that:

data on weather forecasts is inputted at predetermined time intervals,

the digital processing unit calculates the estimated corona discharge start voltage, by the data on weather forecasts,

if the calculated corona discharge start voltage of the transmission line is lower than the normal transmission voltage of the line, a decision is made to make countermeasure transmission voltage that is recorded in memory means in advance a set transmission voltage of the transmission line or to stop transmitting electric power on the transmission line,

if the calculated corona discharge start voltage of the transmission line is above the normal transmission voltage of the line, the normal transmission voltage is selected as to set the transmission voltage of the transmission line,

said power system analysis means analyzes the load of the apparatuses of the power system, and

according to an analysis result, the electric power system operates the apparatuses and transmits electric power.

11. An electric power system operating method comprising:

a corona discharge detection means;

a weather detecting means;

a transmitter;

a digital processing unit; and

a power system analysis means;

including the step of;

stopping corona discharge in a short time by lowering the transmission voltages of a transmission line that generates corona discharge, or stopping transmitting electric power in the transmission line,

adjusting loads of apparatuses in the electric power system, and

operating the apparatuses under an adjusted condition for supplying electric power.